



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,284	03/25/2004	Eran Werner	U 015104-7	6039

7590

03/09/2006

Ladas & Parry  
26 West 61 Street  
New York, NY 10023

EXAMINER

FERGUSON, LAWRENCE D

ART UNIT PAPER NUMBER

1774

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

h

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,284	<b>Applicant(s)</b> WERNER, ERAN	
	<b>Examiner</b> Lawrence D. Ferguson	<b>Art Unit</b> 1774	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/27/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections – 35 USC § 103(a)***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-56, 60-61, 65-66, 70-71, 75-76 and 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann (U.S. 4,097,649).

Neumann discloses a pre-impregnated material comprising a textile substrate where a thermoplastic resin is adhered to the substrate, which is applied in the form of a solution and penetrates partially into the substrate (column 1, lines 9-22 and column 2, lines 46-47). Neumann further discloses the resin has a particle size greater than 20 microns (column 1, lines 49-51). Neumann does not show that the pre-impregnated material has a thickness, impregnation depth, weight percentage and density spectrum as claimed. However, such features are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the thickness, impregnation depth, weight percentage and density spectrum, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. thickness, impregnation depth, weight percentage and density spectrum) fails to render claims patentable in the absence of

unexpected results. All of the aforementioned limitations are optimizable as they directly affect the durability and flexibility of the pre-impregnated material. It would have been obvious to one of ordinary skill in the art to make the pre-impregnated material with the limitations of the thickness, impregnation depth, weight percentage and density spectrum since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

***Claim Rejections – 35 USC § 103(a)***

3. Claims 57-59, 62-64, 67-69, 72-74, 77-79, 82-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann (U.S. 4,097,649) in view of Martin (U.S. 4,836,030).

Neumann is relied upon for claims 1-56, 60-61, 65-66, 70-71, 75-76 and 80-81. Neumann does not explicitly disclose the resin is formed as a plurality of layers formed of different materials. Martin teaches a plurality of alternating pre-impregnated cloth layers comprising resin, which are comprised of different types of cloth and many different types of resin used in different combinations. Neumann and Martin are both directed to multilayer resin layers. Therefore, it would have been obvious to one of ordinary skill in the art to have employed the plurality of alternating pre-impregnated cloth layers comprising resin, which are comprised of different types of cloth and different types of resin used in different combinations, as taught in Martin, in the pre-impregnated composition of Neumann to improve the durability and rigidity of the pre-impregnated composition.

***Claim Rejections – 35 USC § 103(a)***

4. Claims 1-57, 60-62, 65-67, 70-72, 75-77, 80-82 and 85-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson et al (U.S. 6,676,882).

Benson teaches a pre-impregnated laminated material comprising a textile substrate, where the resin is dissolved (melted) and is placed against and adhered to the textile material (column 1, lines 8-36). Benson further discloses creating a stack of layers of resin materials to adhere to the material (column 3, lines 3-14). Benson does not show that the pre-impregnated material has a thickness, impregnation depth, weight percentage, particle size and density spectrum as claimed. However, such features are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the thickness, impregnation depth, weight percentage and density spectrum, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. thickness, impregnation depth, weight percentage, particle size and density spectrum) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are optimizable as they directly affect the durability and flexibility of the pre-impregnated material. It would have been obvious to one of ordinary skill in the art to make the pre-impregnated material with the limitations of the thickness, impregnation depth, weight percentage, particle size and density spectrum since it has

been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hill et al (U.S. 4,062,917) discloses a textile material comprising at least one layer of resin pre-impregnated partially cured fabric (abstract).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


Art Unit: 1774

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



L. Ferguson  
Patent Examiner  
AU 1774



**RENA DYE**  
**SUPERVISORY PATENT EXAMINER**

A-U. 1774 3/6/06